

Adaptec 12Gb/s PCIe Gen3 Product Family High Port Count SAS/SATA RAID Adapters (81605ZQ, 8885Q, 8885, 8805, 8405)

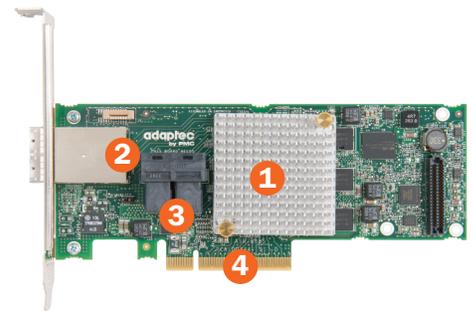


Maximum Performance for 12Gb/s Ecosystems

Data center, IT, and general consumer server environments have a broad range of requirements — from basic connectivity to extreme data storage capacities. The effectiveness at which their data is accessed and protected is crucial to their ultimate success. Adaptec 12Gb/s PCIe Gen3 Series 8 RAID adapters, coupled with 12Gb/s SSDs, provide maximum read/write bandwidth and IOPS for the most performance-hungry transactional and database applications.

The Series 8 family features:

- 1 PMC's 12Gb/s RAID-on-Chip (ROC), x8 PCIe Gen3 interface with 12Gb/s SAS ports to enable a new generation of performance
- 2 16 native SAS/SATA ports in a LP/MD2 design
- 3 12Gb/s throughput with mini SAS HD connectors 
- 4 >700K IOPS; 6.6GB/s sequential reads, 6.2GB/s sequential writes



New maxCache Plus Introduces Tiering Technology

The ability to assign different categories of data to different types of storage media is essential for enhancing data access (performance) while reducing overall storage costs. Adaptec maxCache Plus introduces tiering that provides virtualized pools of storage using any block level storage device. Series 8Q products with maxCache Plus caching and tiering are the most optimized server storage solutions in the market.



Integrated Cache Protection

The Series 8 family continues Adaptec by PMC's battery-free portfolio. Series 8 adapters can be combined with the AFM-700 flash-based cache protection module (sold separately) to enable instant cache protection. New with Series 8, the Adaptec 81605ZQ has flash backup embedded on the board, eliminating the need for a daughterboard and further enabling Adaptec by PMC customers to do more with less.



Advanced Data Protection and Ease of Use

Advanced data protection and ease of use have not been forgotten in Series 8. Adaptec RAID Code (ARC) delivers maximum reliability with an industry-leading feature set, including all of the RAID levels the industry has come to expect, plus unique features like Flexible Configuration modes for the adapter, Hybrid RAID, and Optimized Disk Utilization (ODU) where no available space is wasted. Adaptec's maxView provides an HTML5 web interface, which can be used in standard desktops and mobile browsers, for all storage configuration and management needs.



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SPECIFICATIONS

Benefits	Ideal for 12Gb/s performance-hungry server and workstation platforms, without compromising proven Adaptec reliability	
Key Differentiators	<ul style="list-style-type: none"> maxCache Plus caching/tiering software (Series 8Q only) Third generation ZMCP; AFM-700 (optional for Series 8) 	<ul style="list-style-type: none"> LP/MD2 form factor for up to 16 native SAS/SATA ports
Customer Needs	High I/O transaction and high bandwidth processing; solutions that reduce energy consumption and maintenance costs.	
Key Software Features	<ul style="list-style-type: none"> maxCache Plus caching/tiering software (Series 8Q) Flexible Configuration: HBA Mode & Auto Volume Mode for automatic deployment Optimized Disk Utilization (multiple arrays per disk) Supports up to 256 SATA or SAS devices using SAS expanders Support for native 4K sector SAS and SATA devices in addition to 512 byte sector devices Hybrid RAID 1 & 10 Quick initialization Online Capacity Expansion Copyback Hot Spare Dynamic caching algorithm Native Command Queuing (NCQ) Background initialization Hot-plug drive support RAID Level Migration 	<ul style="list-style-type: none"> Hot spares - global, dedicated, and pooled Automatic/manual rebuild of hot spares SES and SAF-TE enclosure management Configurable stripe size S.M.A.R.T. support Multiple arrays per disk drive Dynamic sector repair Staggered drive spin-up Bootable array support Support for Tape Devices, Autoloaders MSI-X support for all device drivers for all supported Operating Systems Secure boot support for the uEFI host BIOS USB image available on start.adaptec.com to boot maxView GUI from any USB device for enhanced GUI-based setup and offline maintenance
Management Utilities	Adaptec maxView Storage Manager <ul style="list-style-type: none"> Web based GUI Management Utility OS Support: Windows, Linux, Solaris, VMware Remote configuration, monitoring & notification Remote firmware updates SMI-S Support SMTF 	ARCCONF <ul style="list-style-type: none"> Command Line Interface SMI-S support for VMware Adaptec BIOS Configuration Utility (CTRL+A) <ul style="list-style-type: none"> Legacy configuration utility Flashable BIOS support Adaptec uEFI BIOS Configuration Utility <ul style="list-style-type: none"> HII based configuration utility Flashable BIOS support
Operating Systems	Microsoft Windows, Red Hat Linux, SUSE Linux, Fedora, Debian Linux, Ubuntu Linux, Sun Solaris, FreeBSD, VMware ESXi. The latest drivers are available at start.adaptec.com	
Physical Dimensions	2.535"H x 6.6"L (64mm x 167mm)	
Operating Temperature	0°C to 55°C* (with 200 LFM airflow, without flash); 0°C to 50°C* (with 200 LFM airflow, with flash) <i>Note: This adapter contains a powerful RAID processor which requires adequate airflow to operate reliably. Please install this card only into server or PC chassis with at least 200 LFM airflow.</i> *Temperature measured 1 inch from RAID adapter	
Operating Current	0.1A @ 3.3 VDC; 1.2A @ 12.0 VDC 8405, 8805, 8885, 8885Q; 1.0A @ 3.3 VDC; 1.1A @ 12.0 VDC 81605ZQ	
Regulatory Certification	CE, FCC, UL, C-tick, VCCI, KCC, CNS	
Environmental Compliance	RoHS	
MTBF	775,000 hours at 40° C	
Warranty	3 years	

	SERIES 8Q		SERIES 8		
ADAPTEC RAID	81605ZQ	8885Q	8885	8805	8405
Order Part Number	2281600-R (Single)	2277100-R (Single)	2277000-R (Single)	2277500-R (Single)	2277600-R (Single)
RAID Levels	0,1,1E,5,6,10, 50, 60				
Form Factor	MD2-Low Profile 2.535"H x 6.6"L (64mm x 167mm)				
Ports	16 Internal	8 Internal/8 External	8 Internal/8 External	8 Internal	4 Internal
Connectors	4 X SFF-8643	2 x SFF-8643 2 x SFF-8644	2 x SFF-8643 2 x SFF-8644	2 X SFF-8643	1 X SFF-8643
Bus Interface	8-Lane PCIe Gen3				
Processor	PMC 12Gb/s RoC				
Cache	1024MB	1024MB	1024MB	1024MB	1024MB
Cache Protection	Flash backup (embedded) Supercap (included)	AFM-700 (included)	AFM-700 (optional)	AFM-700 (optional)	AFM-700 (optional)

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